

ABSTRACT OF THE DISCLOSURE

[0061] Described are various optical, opto-electrical and electrical components and subsystems. Micro-Electro-Mechanical Systems (MEMS) actuators that employ electrostatic combs adjust uniaxial, unidirectional or bidirectional mirrors between two basic positions with optical power control, one position for each of two switch configurations. Limiting the switching mirrors to two positions limits flexibility, but greatly reduces system cost and complexity, and simplifies beam alignment. In one embodiment, a frame surrounding the comb teeth maintains spacing between teeth to prevent electrical shorts.